

REMARKS

Reconsideration of the above-identified application, as amended, is respectfully requested.

In the Office Action of March 7, 2005 the Examiner initially objected to the drawing Figures 1A-1F as not being properly designated with the legend –Prior Art--. Applicants take this opportunity to include the corrected drawings in the form of Replacement Sheets as required by the Examiner with the corrected designation.

Further in the Office Action, the Examiner objected to the disclosure by alleging that the description on lines 2-3 paragraph [0036] incorrectly indicates the TTO nitride liner as element 28. Applicants take this opportunity to correct this informality by amending the specification to properly indicate the TTO nitride liner as element 50. Initially, the Patent Examiner (Mr. Loke) is thanked for the very kind and courteous telephone interview conducted with respect to the subject patent application on October 8, 2003 in which the substance of the present AMENDMENT was discussed with the Patent Examiner.

Further in the Office Action, the Examiner indicated that the Declaration on file was defective because the name of the fifth inventor (V.C. Jaiprakash) had not been sufficiently set forth. In response, applicants submit a new Declaration executed by this inventor and correctly designating his full name.

In the Office Action, the Examiner further objected to Claim 3 as comprising an informality on line 2 that the phrase “said sidewalls” has no antecedent basis. Claims 1-4 were further rejected under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particularly point out an distinctly claim the subject matter which applicant regards as the invention.

In the Office Action, the Examiner further rejected Claims 1-4 under 35 U.S.C. §102(a), as being allegedly anticipated by Gruening et al. (U.S. Patent No. 6,437,381) (hereinafter “Gruening”).

With respect to the objected to Claim 3, applicants amend Claim 3 to remove the word “said” resulting in the antecedent basis rejection. The Examiner is respectfully requested to remove this objection.

With respect to the rejection under 35 USC 112, second paragraph, the Examiner had correctly indicated that there is extraneous verbiage in the claim that should be removed. Applicants thus remove from amended Claim 1 the extraneous verbiage “immediately adjacent to and contacting a top of” in the Claim. Claim 1 now is clear and definite and the Examiner is respectfully requested to withdraw the rejection based on 35 USC 112, second paragraph.


With respect to the rejection of Claims 1-4 under 35 U.S.C. §102(a), as being allegedly anticipated by Gruening, applicants respectfully disagree. While directed to similar subject matter (vertical deep trench capacitor and FET structures), Gruening’s TTO layer is depicted in the Figures (of Gruening) as layer 14 and is formed immediately adjacent to and contacts the top of the deep trench conductor. In Gruening, a nitride layer is formed on top of the TTO layer 14 in both prior art and inventive embodiments described in Gruening. Gruening thus does not teach or suggest the underlying nitride layer structure as currently claimed in amended Claim 1, i.e.,

...an underlying nitride layer formed immediately adjacent to and contacting a top of a sacrificial oxide layer formed immediately adjacent to and contacting a top of said deep trench conductor between the top of said deep trench conductor and said buried-strap out diffusion region and underlying said TTO layer to eliminate a possibility of TTO layer dielectric breakdown between said gate conductor region and said electrode of said underlying capacitor.

This recited structure in amended Claim 1 specifying an underlying nitride layer (50) formed immediately adjacent to and contacting a top of an additional sacrificial oxide layer (60) formed immediately adjacent to and contacting a top of said deep trench conductor avoids reading on Gruening as shown in the present specification, Figure 3.

This application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that he call applicant's attorney at (516) 742-4343.

Respectfully submitted,


Steven Fischman
Registration No. 34,594

Scully, Scott, Murphy & Presser
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343

SF:gc

Enclosures



FIG. 1A PRIOR ART

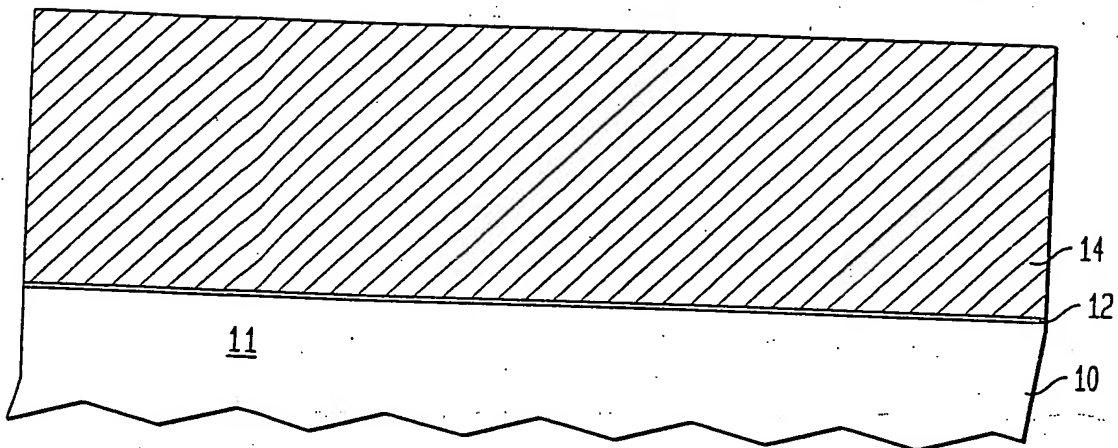


FIG. 1B PRIOR ART

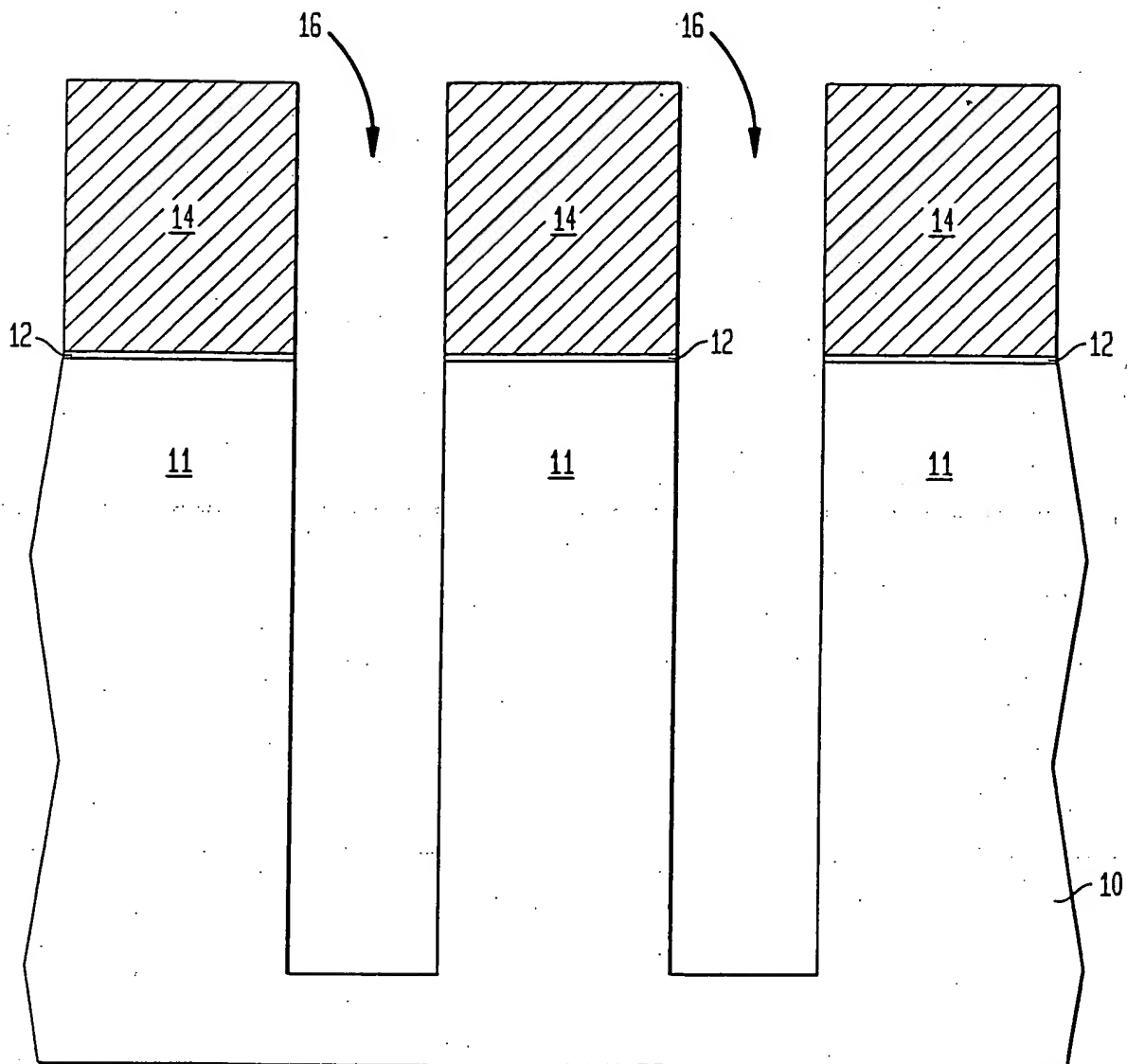


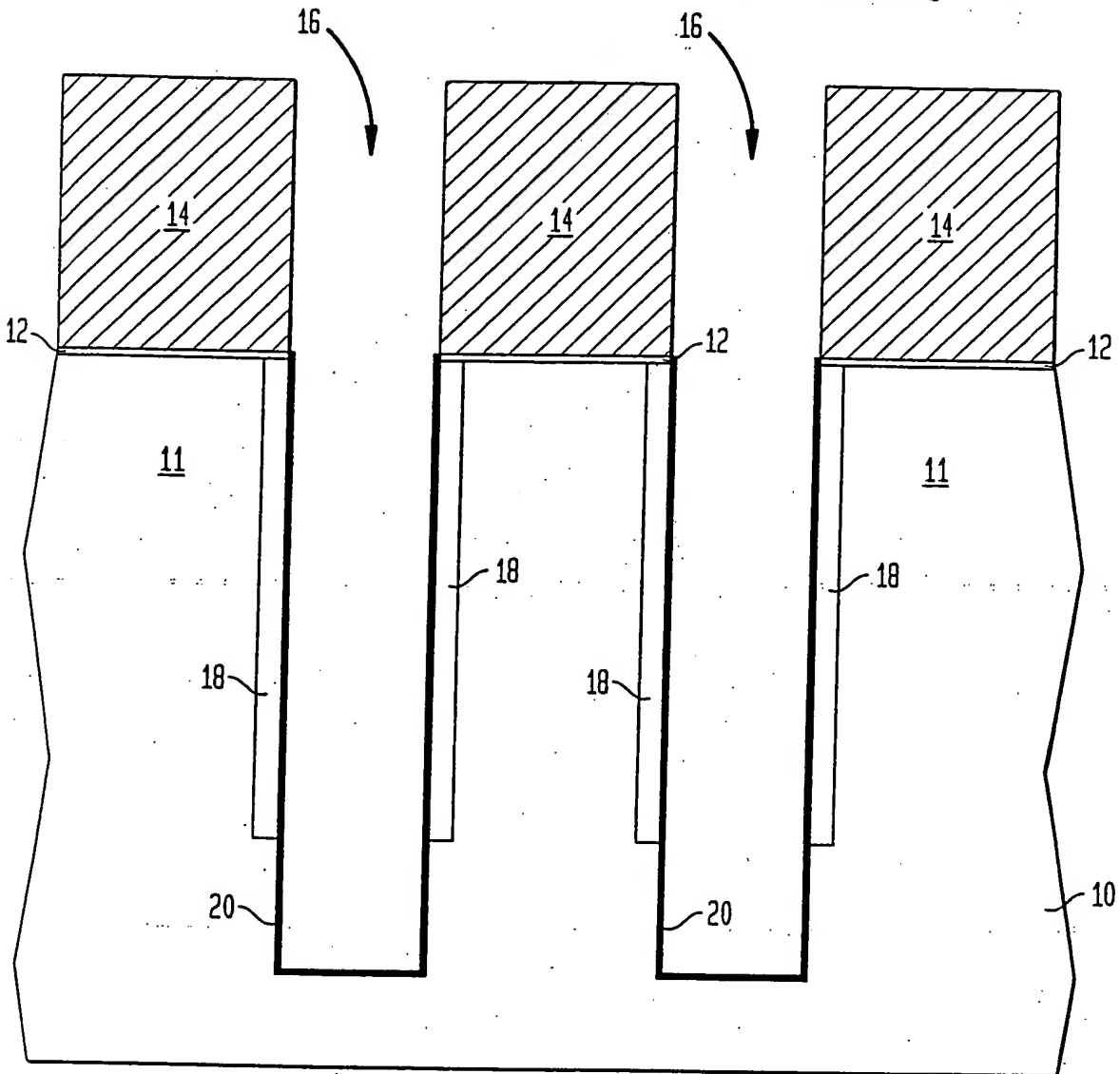
FIG. 1C PRIOR ART

FIG. 1D PRIOR ART

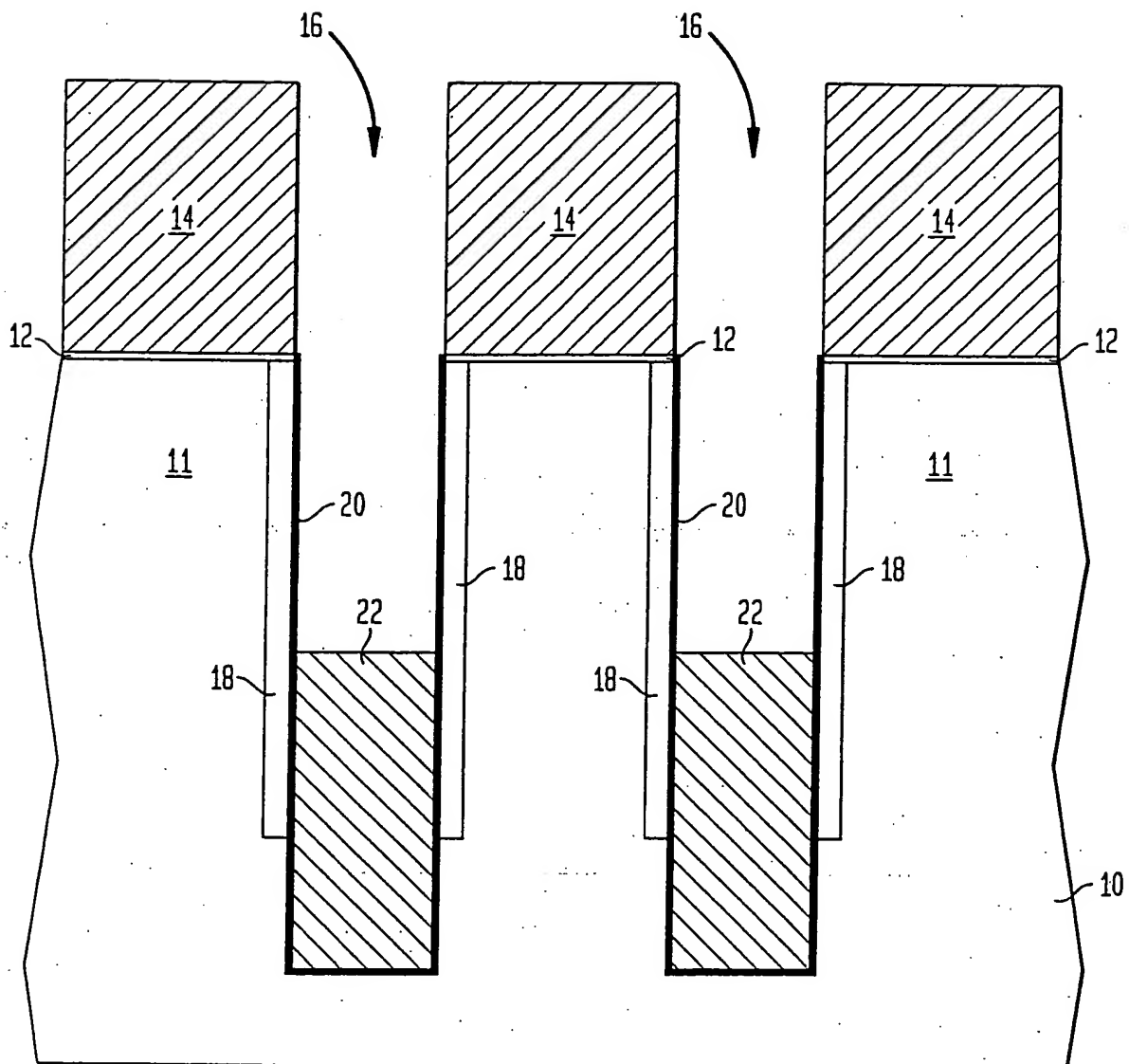


FIG. 1E PRIOR ART

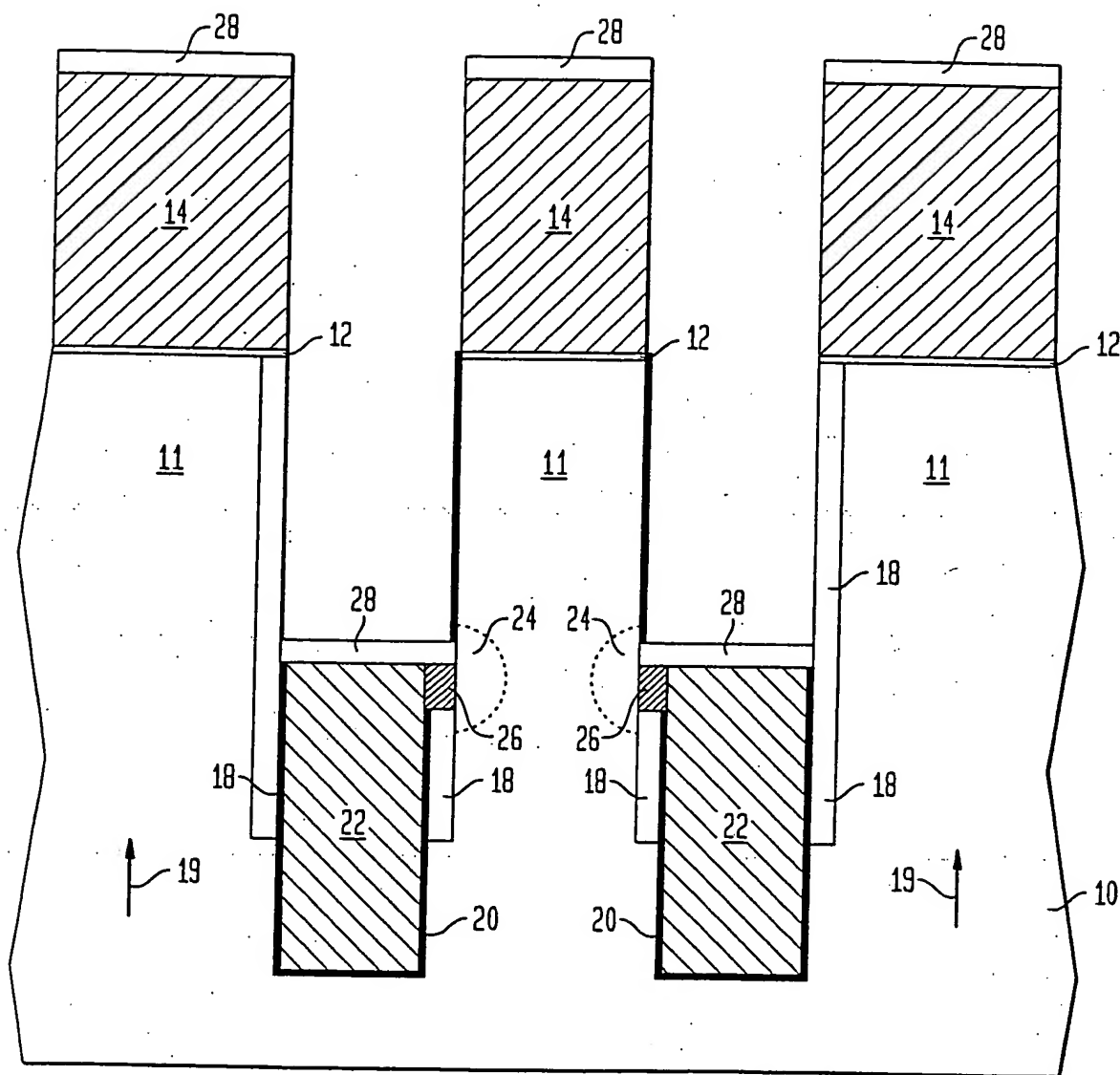


FIG. 1F PRIOR ART

